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## **Environmental factors affecting challenge success in vaccination studies**

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We have tested the efficacies of two different vaccines (a commercial versus an experimental vaccine – both being oil adjuvanted) for rainbow trout against furunculosis caused by *Aeromonas salmonicida* infections. However, when challenging fish with live bacteria in order to assess protection following vaccination, the administration of the pathogen is important for the outcome of the experiments. We have therefore also compared injection challenge with cohabitation challenge. In addition, when doing so we also investigated the influence of environmental conditions such as salinity and temperature on the protection recorded. Thus, challenge studies were conducted at two temperatures (12 and 19°C) and at two salinities (0 and 15 ppt). Mortalities following challenge were recorded and RPS calculated for each group. Side effects of the vaccines were evaluated by using the Speilberg scale. Results from the challenge studies will be presented.

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